

DATES

&

DATA

MARCH 28

Astronomy seminar: The JSC Astronomy Seminar Club will meet at noon today in Bldg. 31, Rm. 248A. For more information contact Al Jackson at x35037.

Spaceteam Toastmasters meet: The Spaceteam Toastmasters meet at 11:30 a.m. at United Space Alliance, 600 Gemini. For details contact Patricia Blackwell at (281) 280-6863.

Spaceland Toastmasters meet: The Spaceland Toastmasters meet at 7 a.m. March 28, April 4 and 11 at the House of Prayer Lutheran Church 1515 Bay Area Blvd at Reseda. For more information, contact Ava Sloan at 713-768-6336 or asloan@halpc.org

MARCH 29

Radio Club meets: The Johnson Space Center Amateur-Radio Club meets at the Piccadilly Cafeteria, 2465 Bay Area Blvd at 6:30 p.m. More information is available at website-<http://www.w5rrr.org>

Communicators meet: The Clear Lake Communicators, a Toastmasters International club, meets at 11:30 March 29, April 5 and 12 at Wyle Laboratories, 1100 Hercules, Suite 305. For more information contact Allen Prescott at (281) 282-3281 or Richard Lehman at (281) 280-6557.

Spaceland Toastmasters 25th Anniversary: All members, past and present, are invited to attend the anniversary dinner held at Perry's Italian Grill. For details contact Ava Sloan at (713) 768-6336.

APRIL 2

NSS meets: The Clear Lake area chapter of the National Space Society meets at 6:30 p.m. at the Parker Williams Branch of the Harris Co. Library at 10851 Scarsdale Blvd. For more information contact Murray Clark at (281) 367-2227.

NSBE meets: The National Society of Black Engineers meets at 6:30 p.m. at Texas Southern University, School of Technology, first floor. For more information contact Kimberly Topps at (281) 280-2917 or visit www.nsbe.org

APRIL 3

Quality Society meets: The Bay Area Section of the American Society for Quality meets at 6 p.m. at the Franco's Restaurant. For more information contact Ann Dorris at x38620.

APRIL 4

Astronomy seminar: The JSC Astronomy Seminar Club will meet at noon on April 4, 11, 18 and 25 in Bldg. 31, Rm. 248A. For more information contact Al Jackson at x35037.

NASA BRIEFS

KENNEDY TEAM WINS
NASA AWARD

Faced with the daunting task of reducing hazardous rocket-fuel waste, a team of inventive scientists and engineers from Kennedy Space Center found a way to really clean up, while at the same time produce a commercially successful and safe by-product.

The team developed a process to convert the hazardous waste to a helpful fertilizer and was honored with NASA's Commercial Invention of the Year Award.

The invention was developed by NASA's Dr. Clyde Parrish, Dr. Dale Lueck, Andrew Kelly and Dynacs Engineering's Paul Gamble. Together, they developed the new process in response to an Agency request to reduce the hazardous waste stream captured in a scrubber when a toxic oxidizer is transferred back and forth from storage tanks into the space shuttle's Orbital Maneuvering Subsystem and Reaction Control System pods. The shuttle's OMS is used for the major orbital and deorbit maneuvers and the RCS is used for orbiter attitude control.

The process was tested and is being implemented at Kennedy, where it is being used on orange groves located on the center's grounds.

NASA RESEARCH SIMULATES
HOW COLD STARS STAY IN SHAPE

In research with the potential to help study stars and improve space navigation, scientists have successfully used lasers to cool a cloud of lithium atoms sufficiently to observe unusual quantum properties of matter. Although current technology does not permit humans to travel to the stars, scientists can create a simulated star laboratory on Earth.

The scientists, at Rice University in Houston, TX, successfully simulated and photographed the process by which white dwarfs and neutron stars retain their size and shape, a mechanism called Fermi pressure. White dwarfs and neutron stars are dense, compact objects created when normal stars use up their fuel, cooling and succumbing to the forces of gravity.

Fermi pressure, named for Dr. Enrico Fermi, a Nobel Laureate prominent for his contributions in nuclear physics, has been theorized as the star stabilization mechanism, which keeps white dwarfs and neutron stars from collapsing further. NASA's Hubble Space Telescope and Chandra X-ray Observatory have observed such objects but this is the first time Fermi pressure has been directly observed in an Earth laboratory. The research by the Rice team, led by Dr. Randall Hulet, was conducted under a grant from NASA's Biological and Physical Research Program through NASA's Jet Propulsion Laboratory, Pasadena, CA.

Public invited to AIAA/Boeing presentation on 747x program

The American Institute of Aeronautics and Astronautics (AIAA), Houston Section will host a dinner meeting featuring the 747X Program. Walter B. Gillette, of The Boeing Company's 747XDevelopment Program, will highlight the definition, design, and development of the 747X family of airplanes, including the 747X, which will be the world's longest-range airplane, and the 747X Stretch, which will be the world's largest 747 in either passenger or freighter configuration.

These models join the 747-400 and Longer-Range 747-400 as well as theLonger-Range 777s in serving the long-range, high-capacity airplane market.

The dinner will be held at JSC's Gilruth Recreation Center Ballroom. The social begins at 5:30 p.m., dinner is at 6 p.m. and presentation at 7 p.m. The event is open to the public. The cost is \$8.00 for AIAA members and spouses, \$10.00 for non-members, and \$5.00 for students.

To RSVP, contact Jorge Molina (281-336-5048 or jorge.molinaacosta@SW.Boeing.com).

GILRUTH CENTER NEWS

Sign-up policy:

All classes and athletic activities are on a first-come, first-served basis. Sign up in person at the Gilruth Center and show a yellow Gilruth or weight room badge. Classes tend to fill up two weeks in advance. Payment must be made in full, by cash or by check, at the time of registration. No registration will be taken by telephone. For more information, call x33345.

Gilruth badges:

Required for use of the Gilruth Center. Employees, spouses, eligible dependents, NASA retirees and spouses may apply for photo identification badges from 7:30 a.m.-9 p.m. Monday-Friday and 9 a.m.-2 p.m. Saturdays. Cost is \$12. Dependents must be between 16 and 23 years old.

Open from 6:30 a.m.-10 p.m. Monday-Thursday, 6:30 a.m.-9 p.m. Friday, and 9 a.m.-2 p.m. Saturday. Contact the Gilruth Center at (281) 483-3345. <http://www4.jsc.nasa.gov/ah/exceaa/Gilruth/Gilruth.htm>

Nutrition intervention program: This is a free seven-week program designed to provide an understanding of the role diet and nutrition play in health. The program includes a series of lectures and private consultations with a dietitian. You will learn how to use dietary vitamins, minerals and herbal nutraceuticals for optimizing health. Classes are held on Wednesdays from 4 p.m. to 5 p.m. For details call Tammie Labiche, registered dietitian, at (281) 483-2980.

Defensive driving: One-day course is offered once a month at the Gilruth Center. Pre-registration required. Cost is \$25. Call for next available class.

Stamp club: Meets every second and fourth Monday at 7 p.m. in Rm. 216.

Weight safety: Required course for employees wishing to use the Gilruth weight room. Pre-registration is required. Cost is \$5. Annual weight room use fee is \$105. The cost for additional family members is \$58.

Exercise: Low-impact class meets from 5:15-6:15 p.m. Mondays and Wednesdays. Cost is \$24 for eight weeks.

Step/bench aerobics: Low-impact cardiovascular workout. Classes meet from 5:25-6:25 p.m. Tuesdays and Thursdays. Cost is \$40 for eight weeks.

Cardio-Kickboxing: Medium impact. Learn basic kicking and punching. Tuesday and Thursday 5:30 p.m. - 6:30 p.m. Cost is \$40 for eight weeks.

Yoga stretching: Stretching class of low-impact exercises designed for people of all ages and abilities in a Westernized format. Meets Thursdays 5-6 p.m. Cost is \$40 for eight weeks. Call Darrell Matula, instructor, at x38520 for more information.

Ballroom dancing: Classes meet Thursdays from 6:30-7:30 p.m. for beginner, 8:30-9:30 p.m. for intermediate and 7:30-8:30 p.m. for advanced. Cost is \$60 per couple.

Fitness program: Health-related fitness program includes a medical screening examination and a 12-week individually prescribed exercise program. For more information call Larry Wier at x30301.

Aikido: Martial arts class for men and women. Beginners meet Monday 6:30 - 7:30 p.m and Wednesdays 5 - 6 p.m. Advanced students meet Tuesday and Wednesday 5 - 6:30 p.m. No special equipment is needed. Aikido teaches balance and control to defend against an opponent without using force. Classes run monthly. Cost is \$45 per month. Visit a class for more information.